

# Rules of the Game

## Going Metric (Part One)

*By Skip Williams*



So, you enjoy the **D&D** game, but you hail from a place where the metric system rules minor little things such as weights and measures. Well, you could buckle down and learn the good old English system. After all, it was developed in the Middle Ages, and it reflects a medieval approach to numbers. The system lends itself to division by halves, thirds, and quarters, which can be pretty handy if you're an illiterate peasant who lives in a cash-poor society where most personal transactions are accomplished through barter. So, using the English system will give you a more authentic medieval setting.

Okay, so you're not so dedicated to an authentic medieval setting. You grew up thinking metric and you'd like to have a better idea of what the game's measurements actually represent. The table below shows some common English units and their metric conversion factors.&nbsp;

Game Measurement	Multiply By	To Get
<b>Length</b>		
Inches	25.4	Millimeters
Inches	2.54	Centimeters
Feet	30.5	Centimeters
Feet	0.305	Meters
Yards	0.914	Meters
Miles	1.61	Kilometers
Leagues[1]	4.83	Kilometers
<b>Area</b>		
Square inches	6.45	Square centimeters
Square feet	0.093	Square meters
Square yards	0.836	Square meters
Square miles	2.56	Square kilometers
Acres	0.405	Hectares
<b>Volume</b>		
Fluid ounces	29.6	Milliliters
Pints[2]	0.473	Liters
Quarts[2]	0.946	Liters
Gallons[2]	3.79	Liters
Cubic feet	28,000	Cubic centimeters
Cubic feet	0.028	Cubic meters

Weight[3]

Ounces	28.3	Grams
Pounds[3]	0.454	Kilograms
Tons[3]	0.907	Metric tons

- 1. One league equals 3 miles
- 2. US measure
- 3. Short ton (2,000 pounds)

Converting Tactical Distances

The basic unit of distance for all tactical movement and combat in the **D&D** game is 5 feet, which is the size of one square. Also, all ranges are given in numbers evenly divisible by 5. The conversion table shows that 5 feet is about 1.525 meters (5x0.305=1.525). The number 1.525 isn't a very practical one for gaming, so let's say that 5 feet equals 2 meters for game purposes. Why 2 meters? First, an even, whole number is more convenient to use than something that's closer to the mark, such as 1.5 meters. Also, other d20 games that were designed from the beginning using metric measurements, such as the *Star Wars* game, already use 2-meter squares.

It's important to make all our distances conform to this number rather than trying to convert them directly. For example, a character with a speed of 30 (feet) has a speed of 12 (meters) in the metric game (not a speed of 9.15 meters). In either case, the character travels 6 squares in one move action.

The table below shows common tactical speeds and their metric conversions:

Speed Table (English Units)

Tactical Speed\*

Base Speed	100	90	80	70	60	50	40	30	20	15	10	5
(squares)	20	18	16	14	12	10	8	6	4	3	2	1
Encumbered	70	65	60	50	40	35	30	20	15	10	5	5
(squares)	14	13	12	10	8	7	6	5	3	2	1	1

One Minute (Local)\*

Current Speed**	100	90	80	70	60	50	40	30	20	15	10	5
Walk	1,000	900	800	700	600	500	400	300	200	150	100	50
Hustle	2,000	1,800	1,600	1,400	1,200	1,000	800	600	400	300	200	100
Run (x3)	3,000	2,700	2,400	2,100	1,800	1,500	1,200	900	600	450	300	150
Run (x4)	4,000	3,600	3,200	2,800	2,400	2,000	1,600	1,200	800	600	400	200

One Hour (Overland)\*\*\*

Current Speed**	100	90	80	70	60	50	40	30	20	15	10	5
Walk	10	9	8	7	6	5	4	3	2	1.5	1	0.5
Hustle	20	18	16	14	12	10	8	6	4	3	2	1

One Day (Overland)\*\*\*

Current Speed*	100	90	80	70	60	50	40	30	20	15	10	5
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Walk	80	72	64	56	48	40	32	24	16	12	8	4
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\*Tactical and local speeds are in feet.

\*\*Use normal or encumbered speed, whichever applies to the creature.

\*\*\*Overland movement is measured in miles.

Speed Table -- English to (Metric Units)

Speed (feet)	100	90	80	70	60	50	40	30	20	15	10	5
Speed (meters)	40	36	32	28	24	20	16	12	8	6	4	2
Speed (squares)	20	18	16	14	12	10	8	6	4	3	2	1

Speed Table (Metric Units)

Tactical Speed\*

Base Speed	40	36	32	28	24	20	16	12	8	6	4	2
(squares)	20	18	16	14	12	10	8	6	4	3	2	1
Encumbered	28	26	24	20	16	14	12	10	6	4	2	2
(squares)	14	13	12	10	8	7	6	5	3	2	1	1

One Minute (Local)\*

Current Speed**	40	36	32	28	24	20	16	12	8	6	4	2
Walk	400	360	320	280	240	200	160	120	80	60	40	20
Hustle	800	720	640	560	480	400	320	240	160	120	80	40
Run (x3)	1,200	1,080	960	840	720	600	480	360	240	180	120	60
Run (x4)	1,600	1,440	1,280	1,120	960	800	640	480	320	240	160	80

One Hour (Overland)\*\*\*

Current Speed**	40	36	32	28	24	20	16	12	8	6	4	2
Walk	24	21.6	19.2	16.8	14.4	12	9.6	7.2	4.8	3.6	2.4	1.2
Hustle	48	43.2	38.4	33.6	28.8	24	19.2	14.4	9.6	7.2	4.8	2.4

One Day (Overland)\*\*\*

Current Speed*	40	36	32	28	24	20	16	12	8	6	4	2
Walk	192	172.8	153.6	134.4	115.2	96	76.8	57.6	38.4	28.8	19.2	9.6

\*Tactical and local speeds are in meters.

\*\*Use base or encumbered speed, as applicable.

\*\*\*Overland speeds are in kilometers.

Coming in Part Two of Going Metric

Skip covers thrown and projectile weapon ranges, spell ranges, and spell areas.

**Skip Williams** keeps busy with freelance projects for several different game companies and has been the Sage of ***Dragon** Magazine* since 1986. Skip is a co-designer of the **D&D** 3rd Edition game and the chief architect of the *Monster Manual*. When not devising swift and cruel deaths for player characters, Skip putters in his kitchen or garden (his borscht gets rave reviews).

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